

Booster Service Manual

Safety Precautions

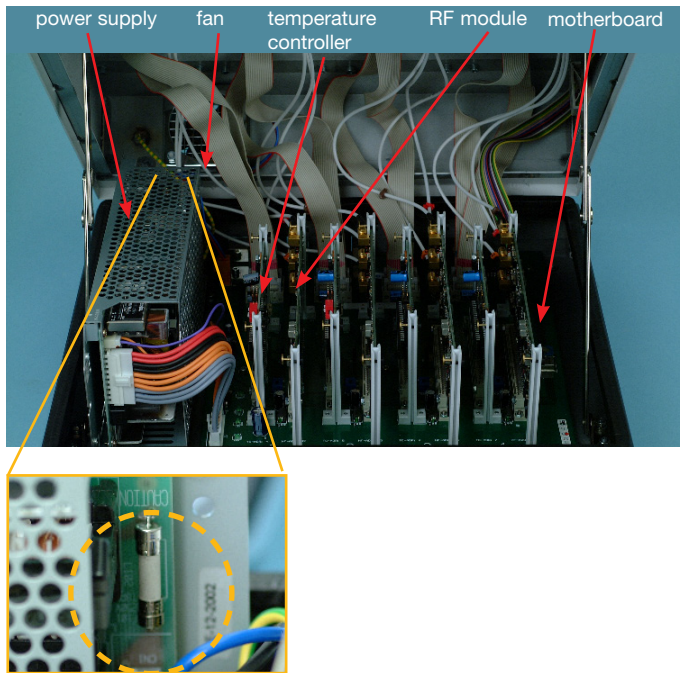


Attention!

This service manual is intended for trained service personal only. If you are unsure about any of these instructions, please contact the Advalytix head office! Advalytix don't take any responsibilities for damages due to incorrect repair.

Before opening the instrument disconnect the mains power. If you need to perform maintenance tasks on an open instrument, be sure to read the appropriate section of the manual first. Never touch the back of the power supply which may contain an open mains fuse!

Booster electronics components



Opening the Instrument

All tools needed to disassemble parts of the Booster are metric!

The Booster case is hinged in the back and held together by two screws in the left and right of the bottom of the instrument. We recommend positioning the instrument on a table such that the rubber feet of the case rest at the very edge. Insert a straight 3mm hex (Allen) driver into the holes in the bottom of the instrument and remove the screws. Then flip open the top section of the case and lock it in the open position using the hinged distance bars at the sides of the instruments.

Each chamber has one temperature controller and one RF module. The cards are configured for the specific chamber by setting the I2C-bus-address indicated on the motherboard. Each chamber has separate heaters and thermometers for its bottom and lid. These are connected to the motherboard (connector on motherboard marked with "lid" and "bottom") by ribbon connectors marked blue for bottom and unmarked for lid. The RF contacts are connected directly to the RF modules.

Changing modules and chambers

Switch off the Booster before disconnecting or inserting any modules!

1. To change a chamber disconnect the RF cables and the ribbon cables. Remove the four hex (Allen) screws holding the chamber on the case and carefully extract the cables through the holes in the case.

To reach the screws from the chamber easier the distance bars of the lids can be unscrewed. This is a crucial step during opening the system as the cable are short and could be ripped out of their connections and destroy those. **For save opening please turn the system onto one side, open the system and unscrew distance bars. Now open the system slowly up to 90°. To avoid any damages it would be best to disconnect all cables before opening the system to 90°.**

Attach the new chamber running the RF-cables through the three holes in the case and the two ribbon cables through the square opening. Fasten the chamber using the four screws.

2. Replacing the temperature controller by setting the right I2C-address and reconnect the ribbon and RF cables.

3. The RF modules can be freely exchanged. Make sure the I2C-address of the module matches the address printed on the motherboard. Use the DIP-switches on the RF module to set the appropriate address.

After finishing please close the device backwards to the opening steps.



Attention!

Please place all cables the same way you came upon them, e.g. place ribbon cable into the assigned cable clamp and secure all cards and HF-cable with cable retainer.

For research use only. Not for use in diagnostic procedures.